

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1-33 (Canceled).

34. (Currently Amended) A method of diagnosing a neoplasm in an animal by phenotype, comprising:
 - (a) providing a biological sample from the animal, wherein the sample comprises neoplastic cells with one or more unknown phenotypes;
 - (b) providing at least two oncolytic viruses, wherein each oncolytic virus selectively replicates in neoplastic cells having a known phenotype selected from the group consisting of ras pathway activation, interferon-resistance, p53-deficiency and Rb-deficiency; and wherein each of the at least two oncolytic viruses replicates in neoplastic cells having a known different phenotype;
 - (c) contacting the neoplastic cells from in the sample with each of the at least two oncolytic viruses under conditions which allow each oncolytic virus to selectively replicate in the neoplastic cells from the sample having the phenotype for which each oncolytic virus is specific;
 - (d) determining if each of the oncolytic viruses can selectively replicates in the neoplastic cells from the sample; and
 - (e) diagnosing a neoplasm in the animal as comprising cells of a specific known phenotype according to the ability of each of the oncolytic viruses to selectively replicate in the neoplastic cells from the sample.
35. (Previously Presented) The method of claim 34 wherein the animal is a mammal.

36. (Previously Presented) The method of claim 35 wherein the mammal is human.
37. (Previously Presented) The method of claim 34 wherein the at least two oncolytic viruses are selected from the group consisting of reoviruses, adenoviruses mutated in the VA1 region, vaccinia viruses mutated in the K3L and/or E3L region, parapoxvirus orf viruses mutated in the OV20.0L gene, influenza viruses mutated in the NS-1 gene, herpes viruses mutated in the γ_1 34.5 gene, vesicular stomatitis virus, ONYX-015 virus and Delta24 virus.
38. (Previously Presented) The method of claim 37 wherein at least one of the oncolytic viruses is selected from the group consisting of reovirus, vesicular stomatitis virus, ONYX-015 virus and Delta24 virus.
39. (Previously Presented) The method of claim 38 wherein the reovirus is a mammalian reovirus.
40. (Previously Presented) The method of claim 39 wherein the mammalian reovirus is a serotype 3 reovirus.
41. (Previously Presented) The method of claim 40 wherein the serotype 3 reovirus is a Dearing strain reovirus.
42. (Previously Presented) The method of claim 38 wherein the reovirus is an avian reovirus.

43. (Previously Presented) The method of claim 34 wherein the animal has a neoplasm selected from the group consisting of lung cancer, prostate cancer, colorectal cancer, thyroid cancer, renal cancer, adrenal cancer, liver cancer, pancreatic cancer, breast cancer, hematopoietic cancer and central and peripheral nervous system cancer.